

1. A high performance thermoplastic hose useful as a power steering hose, said high performance thermoplastic hose comprising a high performance engineering thermoplastic material and a chlorine-containing polyolefin.

2. The high performance thermoplastic hose of claim 1 wherein said high performance engineering thermoplastic polymeric material is selected from the group consisting of polyurethane, polyamide, polyether, polyester, copolyester, polyimides, polysulfones, and mixtures thereof.

3. The high performance thermoplastic hose of claim 2 wherein said high performance engineering thermoplastic polymeric material is polyurethane.

4. The high performance thermoplastic hose of claim 1 wherein said chlorine-containing polyolefin is selected from the group consisting of chlorinated polyethylene, chlorinated polypropylene, chlorinated copolymers containing ethylene and propylene, chlorosulfonated polyethylene, chlorosulfonated polypropylene, chlorosulfonated polymers of ethylene and propylene, and mixtures thereof.

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5. The high performance thermoplastic hose of claim 4 wherein said chlorine-containing polyolefin is chlorosulfonated polyethylene.

6. The high performance thermoplastic hose of claim 4 wherein said chlorine-containing polyolefin is a mixture of chlorinated polyethylene and chlorosulfonated polyethylene.

7. The high performance thermoplastic hose of claim 6 wherein said chlorinated polyethylene and said chlorosulfonated polyethylene in said mixture are present in a ratio of chlorinated polyethylene to chlorosulfonated polyethylene of about 3:1 to 1:3.

8. The high performance thermoplastic hose of claim 1 wherein said high performance engineering thermoplastic material is present in an amount of about 30 to 70% by weight of said high performance thermoplastic hose and said chlorine-containing polyolefin is present in an amount of about 70 to 30% by weight of said high performance thermoplastic hose.

9. A method for manufacturing a high performance thermoplastic hose capable of resisting chemical attack and withstanding temperatures up to about 300°F for use as a power steering hose, said method comprising extruding a thermoplastic vulcanizate through an extruder at a temperature of about 380°F wherein said thermoplastic vulcanizate comprises a high performance engineering thermoplastic material and a chlorine-containing polyolefin.

10. The method of claim 9 wherein said high performance engineering thermoplastic material is selected from the group consisting of polyurethane, polyamide, polyether, polyester, copolyester, polyimide, polysulfone and mixtures thereof.

11. The method of claim 10 wherein said high performance engineering thermoplastic material is polyurethane.

12. The method of claim 9 wherein said chlorine-containing polyolefin is selected from the group consisting of chlorinated polyethylene, chlorinated polypropylene, chlorinated copolymers containing ethylene and propylene, chlorosulfonated

polyethylene, chlorosulfonated polypropylene, chlorosulfonated copolymers containing
5 ethylene and propylene, and mixtures thereof.

13. The method of claim 12 wherein said chlorine-containing polyolefin is chlorosulfonated polyethylene.

14. The method of claim 12 wherein said chlorine-containing polyolefin is a mixture of chlorinated polyethylene and chlorosulfonated polyethylene.

15. The method of claim 14 wherein said chlorinated polyethylene and said chlorosulfonated polyethylene are present in said mixture in a ratio of chlorinated polyethylene to chlorosulfonated polyethylene of about 3:1 to 1:3.

16. The method of claim 9 wherein said mixture comprises about 30 to 70% by weight high performance engineering thermoplastic material and about 70 to 30% by weight chlorine-containing polyolefin.

17. The method of claim 9 wherein said method further comprises the steps of adding a crosslinking agent to said thermoplastic vulcanizate.

18. The method of claim 17 wherein said crosslinking agent is a peroxide, an isocyanate having functionality of more than 2.0, or a cyanurate or isocyanurate containing two or more functional groups.

19. The method of claim 17 wherein said crosslinking agent is added in an amount of up to about 5% by weight of said thermoplastic vulcanizate.

20. A thermoplastic vulcanizate capable of resisting chemical attack and withstanding temperatures up to about 300°F, said vulcanizate comprising a high performance engineering thermoplastic material and a chlorine-containing polyolefin.

21. The thermoplastic vulcanizate of claim 20 wherein said high performance engineering thermoplastic material is selected from the group consisting of polyurethane, polyamide, polyether, polyester, copolyester, polyimide, polysulfone, and mixtures thereof.

22. The thermoplastic vulcanizate of claim 21 wherein said high performance engineering thermoplastic material is polyurethane.

23. The thermoplastic vulcanizate of claim 16 wherein said chlorine-containing polyolefin is selected from the group consisting of chlorinated polyethylene, chlorinated polypropylene, chlorinated copolymers containing ethylene and propylene, chlorosulfonated polyethylene, chlorosulfonated polypropylene, chlorosulfonated copolymers containing ethylene and propylene, and mixtures thereof.

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24. The thermoplastic vulcanizate of claim 23 wherein said chlorine-containing polyolefin is chlorosulfonated polyethylene.

25. The thermoplastic vulcanizate of claim 23 wherein said chlorine-containing polyolefin is a mixture of chlorinated polyethylene and chlorosulfonated polyethylene.

26. The thermoplastic vulcanizate of claim 25 wherein said chlorinated polyethylene and said chlorosulfonated polyethylene in said mixture are present in a ratio of chlorinated polyethylene to chlorosulfonated polyethylene of about 3:1 to 1:3.

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27. The thermoplastic vulcanizate of claim 20 wherein said high performance engineering thermoplastic material is present in an amount of about 30 to 70% by weight of said thermoplastic vulcanizate and said chlorine-containing polyolefin is present in an amount of about 70 to 30% by weight of said thermoplastic vulcanizate.